Volume 10 1993

Journal of Classification

Editor
Phipps Arabie
Faculty of Management
Rutgers University
180 University Avenue
Newark, NJ 07102-1895
(BITNET: 2018001 at rutvm1)

Book Review Editor
A. D. Gordon
Mathematical Institute
University of St. Andrews
North Haugh
St. Andrews KY16 9SS
Scotland

Technical Editor
Lynn Bilger

Editorial Board
H. H. Bock, Aachen, FRG
J. D. Carroll, Newark, NJ, USA
W. H. E. Day, St. John's Nfld, Canada
J. de Leeuw, Los Angeles, CA, USA
G. De Soete, Ghent, Belgium
W. S. DeSarbo, Ann Arbor, MI, USA
R. C. Dubes, East Lansing, MI, USA
J. Felsenstein, Seattle, WA, USA
O. Frank, Stockholm, Sweden
A. D. Gordon, St. Andrews, UK
J. C. Gower, Harpenden, UK
R. L. Graham, Murray Hill, NJ, USA
P. E. Green, Philadelphia, PA, USA
J. A. Hartigan, New Haven, CT, USA
C. Hayashi, Tokyo, Japan
W. Heiser, Leiden, The Netherlands
E. W. Holman, Los Angeles, CA, USA
L. J. Hubert, Champaign, IL, USA
J. B. Kruskal, Murray Hill, NJ, USA
W. J. Krzanowski, Exeter, UK
N. Lauro, Naples, Italy
L. Lebart, Paris, France
B. Leclerc, Paris, France
R. F. Ling, Clemson, SC, USA
G. McLachlan, Brisbane, Australia
J. Meulman, Leiden, The Netherlands
B. Monjardet, Paris, France
F. Murtagh, Munich, FRG
F. J. Rohlf, Stony Brook, NY, USA
G. Saporta, Paris, France
M. Schader, Mannheim, FRG
R. R. Sokal, Stony Brook, NY, USA
Y. Takane, Montreal, Que, Canada
L. R Tucker, Champaign, IL, USA

Published for the
CLASSIFICATION SOCIETY OF NORTH AMERICA
(with the support of the International Federation of Classification Societies)
by
Springer International

ISSN: 0176-4268

The exclusive copyright for all languages and countries, including the right for photomechanical and any other reproductions, also in microform, is transferred to the publisher.
The use of registered names, trademarks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

Printed in the United States of America
© 1993 by Springer-Verlag New York Inc.

Index to Volume 10

Authors of Articles

CARROLL, J. D.: see DE SOETE, G., et al. 75

CHATURVEDI, A. D.: see DE SOETE, G., et al. 75

DE SOETE, G., CARROLL, J. D., CHATURVEDI, A. D.: A Modified CANDECOMP Method for Fitting the Extended INDSCAL Model 75

DE SOETE, G., WINSBERG, S.: A Latent Class Vector Model for Preference Ratings 195

DESARBO, W. S., RAMASWAMY, V., LENK, P.: A Latent Class Procedure for the Structural Analysis of Two-Way Compositional Data 159

ECKES, T., ORLIK, P.: An Error Variance Approach to Two-Mode Hierarchical Clustering 51

GENKIN, A. V., MUCHNIK, I. B.: Fixed Points Approach to Clustering 219

GREEN, P. E.: see KRIEGER, A. M. 93

HENDY, M. D., PENNY, D.: Spectral Analysis of Phylogenetic Data 5

KIERS, H. A. L.: see TEN BERGE, J. M. F., et al. 115

KRIEGER, A. M., GREEN, P. E.: Generalized Measures of Association for Ranked Data with an Application to Prediction Accuracy 93

KRIJNEN, W. P.: see TEN BERGE, J. M. F., et al. 115

KRZANOWSKI, W. J.: The Location Model for Mixtures of Categorical and Continuous Variables 25

LENK, P.: see DESARBO,W. S., et al. 159

LEWIS, S.: see SRIRAM, N. 241

MUCHNIK, I. B.: see GENKIN, A. V. 219

ORLIK, P.: see ECKES, T. 51

PENNY, D.: see HENDY, M. D. 5

RAMASWAMY, V.: see DESARBO, W. S., et al. 159

SRIRAM, N., LEWIS, S.: Constructing Optimal Ultrametrics 241

5 731HI XL 1237
9/94 31249-223

TEN BERGE, J. M. F., KIERS, H. A. L., KRIJNEN,W. P.: Computational Solutions for the Problem of Negative Saliences and Nonsymmetry in INDSCAL 115

WINSBERG, S.: see DE SOETE, G. 195

Reviewers of Books

DAY, W. H. E.: *Trees and Proximity Representations* 137

KECECIOGLU, J.: *Sequence Analysis Primer* 144

KETTENRING, J. R.: *A User's Guide to Principal Components* 131

KRZANOWSKI, W. J.: *Discriminant Analysis and Statistical Pattern Recognition* 128

OHSUMI, N.: *Classification, Data Analysis, and Knowledge Organization—Models and Methods with Applications* 149

PENTTINEN, A.: *Spatial Statistics: Past, Present, and Future* 125

ROHLF, F. J.: *Morphometric Tools for Landmark Data: Geometry and Biology* 133

WEIR, B. S.: *Phylogenetic Analysis of DNA Sequences* 139

WILLETT, P.: *Simulated Annealing. Parallelization Techniques* 153

Authors of Books Reviewed

AZENCOTT, R., Ed.: *Simulated annealing. Parallelization Techniques* 153

BARTHÉLEMY, J.-P., GUÉNOCHE, A.: *Trees and Proximity Representations* 137

BOCK, H. H., IHM, P., Eds.: *Classification, Data Analysis, and Knowledge Organization—Models and Methods with Applications* 149

BOOKSTEIN, F. L.: *Morphometric Tools for Landmark Data: Geometry and Biology* 133

CRACRAFT, J.: see MIYAMOTO, M. M. 139

DEVEREUX, J.: see GRIBSKOV, M. 144

GRIBSKOV, M., DEVEREUX, J., Eds.: *Sequence Analysis Primer* 144

GRIFFITH, D. A., Ed.: *Spatial Statistics: Past, Present, and Future* 125

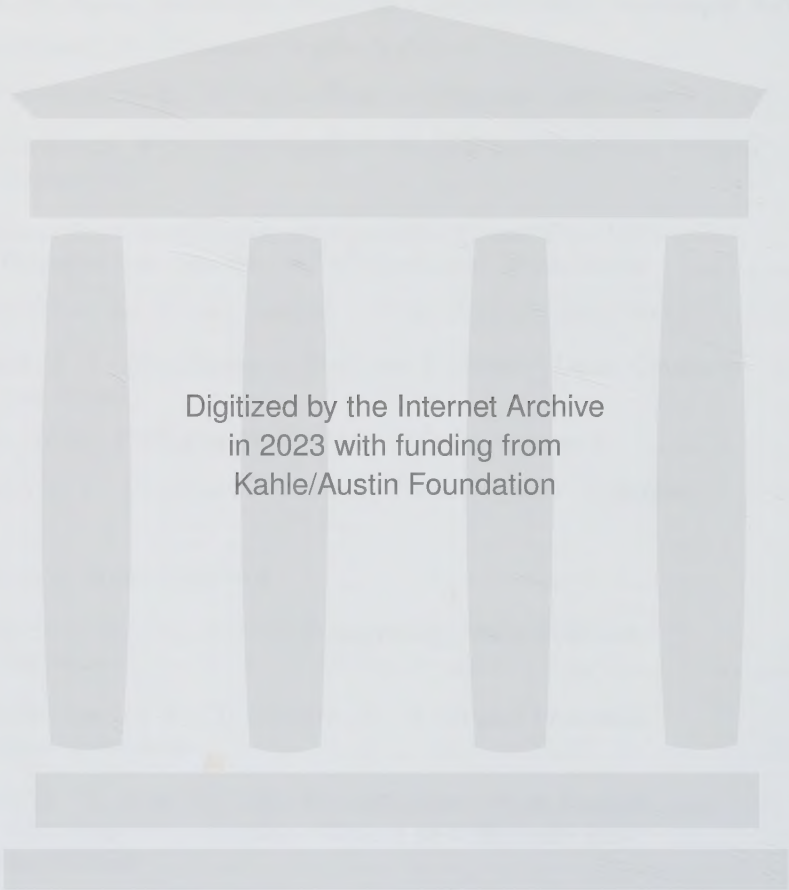
Guénoche, A.: see Barthélemy, J.-P. 137

Ihm, P.: see Bock, H. H. 149

Jackson, J. E.: *A User's Guide to Principal Components* 131

McLachlan, G. J.: *Discriminant Analysis and Statistical Pattern Recognition* 128

Miyamoto, M. M., Cracraft, J., Eds.: *Phylogenetic Analysis of DNA Sequences* 139



Digitized by the Internet Archive
in 2023 with funding from
Kahle/Austin Foundation

https://archive.org/details/journal-of-classification_1993_10_index

If this is what the Intelligencer looks like when you get it...

Then it's time to enter your own subscription!

If the *Intelligencer* you read is a little frayed around the edges, a little thumbed through, or even just a little bit late in getting to you (like a season or two), then it's time for you to demand what you have coming...your own subscription!

WHY?

Because the *Intelligencer* is a one-of-a-kind publication written specifically for mathematicians. It is the history of math and history-making math. It gives new insight to old equations and offers purely mathematical entertainments. It conducts tours through the world of math that only "A French Officer in Prussian Magdeburg" and "An American Woman in Göttingen" could give. It is, in a word, a MUST.

But most of all, it's what you WANT to read and what you deserve to read...FIRST.

So stop waiting for it in your department routing (which may take forever), or for that grad student to return it (which may be never), enter your subscription today!

And if you do so by December 31, 1993, you can lock in 1993 rates on one- and two-year subscriptions!

THE MATHEMATICAL INTELLIGENCER
The magazine for mathematicians
Published Quarterly

Editor-in-Chief:
Chandler Davis, *University of Toronto, Canada*
Recipient of the 1992 Excellence in Journals Design & Production Award — The Association of American Publishers

TO ORDER CALL TOLL-FREE 1-800-777-4643, ext. 9
8:30 AM to 4:30 PM E.S.T. — In NJ DIAL 201-348-4033
— or mail in the order form below.

ORDER FORM

Yes, please enter my subscription today to:

The Mathematical Intelligencer

ISSN 0343 Title No. 283

☐ One-year subscription (4 issues): $37.00

☐ Two-year subscription (8 issues): $64.75

BEST VALUE!

ORDERS MUST BE RECEIVED BY DECEMBER 31, 1993, TO QUALIFY FOR THESE RATES.

AFTER DECEMBER 31, 1993, 1994 RATES TAKE EFFECT.
Subscriptions begin with prepayment only and are filled as issues are published.
Prices include postage and handling. In Texas and Vermont, please add applicable sales tax. In Canada, please add 7% GST.

☐ Check enclosed
(made payable to Springer-Verlag New York, Inc.)

Charge my ☐ AmEx ☐ VISA ☐ MC ☐ Discover Card

Card No. _____ Exp. Date _____

Signature _____

Name _____

Address _____

City/State/Zip _____

Please return this form with your check or credit card information to:

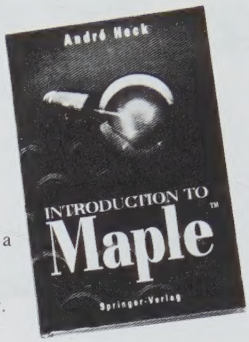
SPRINGER-VERLAG NEW YORK, INC.,
P.O. Box 2485, Secaucus, NJ 07096-2491
or Fax your order to: 201-348-4033

S1159

SPRINGER FOR STATISTICS

A. HECK, Expertise Centre CAN, Amsterdam

INTRODUCTION TO MAPLE



Introduction to Maple provides a hands-on, in-depth introduction to the most important aspects of the Maple system. Among the topics covered are integration and summation, ODEs, graphics, and Maple data structures. While it is recommended that the reader have a good background in mathematical theory, no previous exposure to symbolic computation is necessary.

1993/497 pp., 84 illus./Hardcover/$39.00
ISBN 0-387-97662-0

D. REDFERN, Practical Approach, Ontario, Canada

THE MAPLE HANDBOOK

The Maple Handbook is an efficient, well-planned, and comprehensive reference and learning tool for the Maple V Release 2 symbolic computation language. All Maple commands are described in a concise, and consistent manner. Topics include calculus, linear algebra, number theory, programming, etc., each explained in context. This book will be an indispensable tool for all Maple users.

It begins with a "Getting Started With Maple" tutorial which lays the groundwork for using Maple efficiently and effectively. The following 12 chapters go into the commands and structures for specific disciplines of computation; and each chapter is prefaced by an introductory quick tutorial providing simple explanations and examples. Entries for individual commands contain information on various aspects, including common parameter sequences, what type of output to expect, additional hints and information, and page references to the standard Maple manual set.

1993/app. 400 pp./Softcover/$29.00/ISBN 0-387-94054-5

P.G. HALL, Australian National University, Canberra, Australia

THE BOOTSTRAP AND EDGEWORTH EXPANSION

A readable introduction to the theory of bootstrap methods suitable for graduate students and research workers in statistics. It discusses the applications of bootstrap methods to linear regression, non-parametric regression, and density estimation. The first chapters introduce the basic concepts of bootstrap methods and the edgeworth expansion. Subsequent chapters explore the interaction between the two subjects and their application to statistical techniques. Technical details are deferred to the last chapter enabling a reader with a relatively small exposure to theoretical statistics to enjoy this account of a rapidly growing branch of statistical research.

1992/352 pp., 6 illus./Hardcover/$49.00/ISBN 0-387-97720-1
Springer Series in Statistics

J. DOOB, University of Illinois, Urbana, IL

MEASURE THEORY

This book is different from other books on measure theory in that it accepts probability theory as an essential part of measure theory. This means that many examples are taken from probability; that probabilistic concepts such as independence, Markov processes and conditional expectations are integrated into the text rather than being relegated to an appendix; that more attention is paid to the role of algebras than is customary; and that the metric defining the distance between sets as the measure of their symmetric difference is exploited more than is customary.

1993/app. 240 pp./Hardcover/$49.00/ISBN 0-387-94055-3
Graduate Texts in Mathematics, Volume 143

A. KARR, National Institute of Statistical Sciences, Research Triangle Park, NC

PROBABILITY

This is a textbook which will provide students with a straightforward introduction to the mathematical theory of probability. It is written with the aim of presenting the central results and techniques of the subject in a complete and self-contained account. As a result, the emphasis is on giving results in simple forms with clear proofs and to eschew more powerful forms of theorems which require technically involved proofs. Any graduate student who has a familiarity with real analysis will be able to use this text - measure theory is used only where necessary and undue abstraction is avoided. Throughout, there are a wide variety of exercises to illustrate and to develop the ideas in the text.

1993/app. 300 pp., 15 illus./Hardcover/$39.00(tent.)/ISBN 0-387-94071-5
Springer Texts in Statistics

FORTHCOMING SECOND EDITION!

N. FRUDE, University of Whales, Cardiff

A GUIDE TO SPSS/PC+

1993/app. 250 pp., 25 illus./Softcover/$39.00(tent.)/ISBN 0-387-91442-0

Three Easy Ways to Order:

CALL Toll-Free 1-800-SPRINGER (NJ call 201-348-4033) (8:30 AM-4:30 PM EST) or FAX 201-348-4505. Please mention S292 when ordering by phone.
WRITE to Springer-Verlag New York Inc., Dept. S292,PO Box 2485, Secaucus, NJ 07096-2491.
VISIT your local technical bookstore.
Payment can be made by check, purchase order, or credit card. Please enclose $2.50 for shipping ($1.00 additional books) & add appropriate sales tax if you reside in CA, MA, NY, NJ, PA, TX, VA and VT. Canadian residents please add 7% GST.
Instructors: Call or Write for information on textbook examination copies.
Remember...your 30-day return privilege is always guaranteed!

8/93 REFERENCE #: S292

Springer-Verlag
NEW YORK